

**AMENDMENTS TO THE CLAIMS:**

This listing of the claims below will replace all prior versions and listing of claims:

1. (Original) An isolated polypeptide comprising all or a distinctive fragment of BACE455.
2. (Currently Amended) The polypeptide of claim 1, comprising all or a distinctive fragment of the amino acid sequence SEQ ID NO: 2.
3. (Previously Presented) The polypeptide of claim 2, which comprises an amino acid sequence of SEQ ID Nos 3-10 or 11.
4. (Currently Amended) An isolated polynucleotide encoding the polypeptide of claim 1,~~2 or 3~~.
5. (Original) The polynucleotide of claim 4, comprising the sequence of SEQ ID NO: 1.
6. (Currently Amended) A vector comprising the polynucleotide of claim 4~~or 5~~.
7. (Canceled)
8. (Canceled)
9. (Original) An inhibitory nucleic acid molecule, wherein said molecule hybridizes under physiological conditions to a nucleic acid molecule encoding a BACE455 polypeptide and selectively inhibits transcription or translation thereof.
10. (Original) A host cell comprising a polynucleotide of claim 4 or a vector of claim 6.
11. (Currently Amended) An isolated polynucleotide comprising
  - a) a nucleic acid comprising a first nucleotide sequence that hybridizes under stringent conditions to the nucleic acid sequence set forth in SEQ ID NO 1, or
  - b) a nucleic acid comprising a second nucleotide sequence exactly complementary to said first nucleotide sequence.

12. (Original) A ligand able to selectively bind a BACE455 polypeptide or a distinctive fragment thereof.
13. (Previously Presented) The ligand of claim 12, which comprises a polypeptide comprising an antibody, a fragment of an antibody, or a derivative of an antibody.
14. (Original) The polypeptide of claim 13, which binds a distinctive fragment of a BACE455 polypeptide.
15. (Original) A BACE455 inhibitor, wherein said inhibitor inhibits the expression or activity of a BACE455 polypeptide or nucleic acid.
16. (Canceled)
17. (Original) A method of treating or preventing a neurodegenerative diseases or an associated disorder in a subject, the method comprising administering to said subject an effective amount of a BACE455 inhibitor.
18. (Original) A method of treating or preventing production or accumulation of A $\beta$  peptide in a subject, the method comprising administering to said subject an effective amount of a BACE455 inhibitor.
19. (Canceled)
20. (Canceled)
21. (Canceled)
22. (Canceled)
23. (Canceled)
24. (Canceled)